

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Canceled).

2. (Currently amended) The adjusting method according to ~~claim 1~~ claim 6, wherein said center of the tip surface of said earth electrode is an area centroid of the tip surface ~~said reflected image~~ of said earth electrode.

3. (Currently amended) The adjusting method according to ~~claim 1~~ claim 6, wherein ~~said moving step moves~~ the step of changing the positional relation includes moving the opposite portion of said earth electrode by a displacement including a prescribed spring-back.

4. (Currently amended) The adjusting method according to ~~claim 1~~ claim 6, wherein ~~all of the steps of measuring the positional difference and the step of changing the positional relation~~ are repeated, if said positional difference is not within a prescribed tolerance.

Claim 5. (Canceled).

6. (New) A method for adjusting a positional relation between an earth electrode and a center electrode disposed away from the earth electrode through a spark gap, comprising:

providing a spark plug having a housing, the said center electrode extending along a center axis thereof and terminating distally in a tip portion having a tip surface, and the said earth electrode having one end portion fixed to said housing and an

opposite end portion, said opposite end portion having a tip surface at a distal end thereof and having a side surface disposed in generally opposed facing relation to said tip surface of said center electrode through the spark gap;

measuring a positional difference between said center axis and a center of said tip surface of said earth electrode along a direction perpendicular to said center axis; and

changing the positional relation between the earth electrode and the center electrode so as to reduce said measured positional difference.

7. (New) The method according to claim 6, further comprising:

illuminating the tip portion of the center electrode and the tip surface of the earth electrode from a front of the tip surface of the earth electrode;

picking up a reflected image of both the illuminated tip portion of the center electrode and the illuminated tip surface of the earth electrode; and

determining a position of the center of the tip surface of the earth electrode and a position of the center axis of the center electrode on the basis of the reflected image, the positional difference being measured on the basis of the determined positions.

8. (New) The method according to claim 6, wherein at least one of the illuminating step or the picking-up step are preceded by a chucking step for chucking the spark plug.

9. (New) The method according to claim 6, wherein the spark plug has a single earth electrode.

10. (New) A method of adjusting a positional relation between a cylindrical center electrode extending along its center axis and held within a housing of a spark plug while being insulated from the housing and an earth electrode which has a first end portion fixed to the housing and a second end portion having a side surface

opposed to a tip surface of a tip portion of the center electrode through a spark gap, comprising:

measuring a positional difference between the center axis of the center electrode and a center of a tip surface of the second end portion of the earth electrode along a direction perpendicular to the center axis of the center electrode; and

moving the second end portion of the earth electrode so as to reduce the positional difference.

11. (New) The method according to claim 10, further comprising:

illuminating the tip portion of the center electrode and the tip surface of the earth electrode from a front of the tip surface of the earth electrode;

picking up a reflected image of both the illuminated tip portion of the center electrode and the illuminated tip surface of the earth electrode; and

determining a position of the center of the tip surface of the earth electrode and a position of the center axis of the center electrode on the basis of the reflected image, the positional difference being measured on the basis of the determined positions.

12. (New) The method according to claim 10, wherein the center of the tip surface of the earth electrode is an area centroid of the tip surface of the earth electrode.

13. (New) The method according to claim 6, wherein the step of changing the positional relation includes moving the second end portion of the earth electrode by a displacement including a prescribed spring-back.